

On examining the snake, we found fresh puncture wounds on the head and in two other areas within 15 cm of the head; these were clearly talon marks. We can only speculate about what occurred just prior to our appearance on the scene. From all appearances, the rat snake had climbed the silo to the owl nest and was attacked by the owl when about 3 m from the nest.

The rat snake was 151 cm long (snout vent length—134 cm) and weighed 772 g. For comparison, two adult male Barn Owls from Oktibbeha County in the ornithological collection at Mississippi State University weighed 492 and 512 g. The Barn Owl chicks in this nest weighed from 76.3 to 302 g.

The gray rat snake is well-known as a climber and predator on nestling birds (Jackson 1974, 1976). Perusal of bibliographic entries for the Barn Owl in Clark et al. (1978), and a review of the Barn Owl in Bent (1938), revealed no reference to snakes as prey of Barn Owls, Barn Owls as prey of snakes, or nest defense by Barn Owls against a snake. Thus, the incident reported here, however interpreted, seems to be unusual.

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INNATE FISHING BEHAVIOR OF OSPREYS

by

Charles P. Schaadt

and

Larry M. Rymon

Department of Biology

East Stroudsburg State College

East Stroudsburg, Pennsylvania 18301

The literature contains much controversy regarding the innate fishing abilities of the Osprey (*Pandion haliaetus*). Zarn (1974) noted little documentation exists for post-fledging activity of young Ospreys. Meinertzhagen (1954) anthropomorphically described attempts by adult Ospreys in Sweden to teach young to fish, and D. S. MacCarter (1972) stated that Ospreys at Flathead Lake appeared to teach young to fish, but questioned the validity of his own conclusions. Bent (1937) and Craighead and Craighead (1939) both stated that fishing behavior is innate and that Ospreys do not teach their young to fish. This area of Osprey life history clearly needs clarification.

Brown and Amadon (1968) hypothesized that young raptors possess innate hunting instincts that stimulate hunting behavior even while food is being provided by adults. This hypothesis is supported by observations made on young of the Peregrine Falcon (*Falco peregrinus*). Nestling Peregrines released to the wild through a "hacking" procedure learned to kill their own food in 4 to 6 weeks after leaving the nest (Sherrod and Cade, 1979). The Bald Eagle (*Haliaeetus leucocephalus*) hacked in a similar manner also demonstrated ability to seek and kill prey independently (Milburn, 1979). Hacking of Ospreys as a species management technique is obviously dependent on the theory of innate hunting instincts in young birds during the post-fledging period.

Research concerned with developing reintroduction techniques to reestablish inland nesting populations of Ospreys in favorable habitats further supports this theory. During the summer of 1980, 6 nestling Ospreys were obtained from nest-sites in the Chesapeake Bay and transferred to the Wild Creek Reservoir complex in northeastern Pennsylvania. The six-week-old donor birds were placed in artificial nests on hacking towers and fed by workers through a blind, minimizing the possibility of the birds relating human presence to food supply. The birds were fed in this manner until they fledged in late July.

As the Ospreys began returning regularly to the towers to feed, the instinctive development of fishing behavior became apparent. They, however, displayed markedly different patterns of post-fledging behavior. Three birds, Group A, gained independence of nest platforms within 5 to 12 days and perched on specific snags to hunt, whereas Group B continued to use the nest platforms to perch and feed until they dispersed in

late August. The 2 groups also displayed marked differences in fish catching ability (Table I). All birds were observed fishing successfully on at least 1 occasion, and 1 bird that began fishing immediately, was successful on 8 observed occasions, including the second and third day after fledging. Hammer (pers. comm.) also observed hacked Ospreys fishing instinctively in Tennessee.

Table I. Platform dependence time, fishing attempts and success percentages for post-fledging Ospreys hacked in Pennsylvania in 1980.

OBSERVATIONS	GROUP A			GROUP B		
	GREY	BLUE	WHITE	YELLOW	RED	GREEN
Platform Dependence Time (days after fledging)	8	12	5**	25*	15*	19*
Dives	15	2	6	8	7	4
Successes	8	1	1	1	1	2
Percent of Fishing Success (per bird)	53.3	50.0	16.7	12.5	14.3	50.0
Percent of Fishing Success (per group)	23 dives 10 successes		43.4	19 dives 4 successes		21.1
Percent of Fishing Success (overall)		42 dives 14 successes		33.3		

*at dispersal

**found deceased

Although the sample size is small, the data clearly demonstrates that fishing behavior is innate in Ospreys and that young can be successful hunters without the "teaching" benefits of parent birds.

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